

-- Figure 3A and 3B show the complete nucleotide (SEQ ID NO: 1) and deduced amino acid sequence (SEQ ID NO: 2) of a single chain TCR derivative which contains variable α and β specific for HA linked through a short peptide linker and then fused through a CD8 hinge to the ζ chain. --

Please delete Figure 6 and substitute therefor the attached and amended Figure 6.

IN THE CLAIMS:

Sub 42
1. (Amended) A method of isolating a nucleic acid molecule having a nucleotide sequence encoding at least one of the variable regions of each of the α and β chains of a mouse T-cell receptor (TCR) which TCR is specific for a tumor-associated antigen (TAA) selected from the group consisting of Her-2/neu, RAS, [p53,] tyrosinase, MART, Gp100, Mage, Bage and MUC-1, which method comprises

immunizing a transgenic mouse whose genome comprises a nucleic acid sequence encoding a human leukocyte antigen (HLA-A2) operatively linked to a promoter, wherein said transgenic mouse expresses the HLA-A2 on the surface of antigen presenting cells (APC), with a tumor associated antigen (TAA) such that the TAA is recognized by cytotoxic T lymphocytes (CTL) of the transgenic mouse and such that TAA-specific, HLA-A2 restricted CTL are obtained,

recovering said HLA-A2 restricted CTL, which contain said nucleic acid molecules encoding at least one of each of the variable regions of the α and β chains of a non-human TCR,

cloning or amplifying said nucleic acid molecule encoding the TCR nucleotide sequence isolated from the HLA-A2 restricted CTL and;

isolating the nucleic acid sequence encoding at least one of the α and β chains of the variable region of the mouse TCR that is specific for the TAA.

Sub 43
4. (Amended) The method of claim 3 wherein the cloning or amplifying step further comprises a polymerase chain reaction using primers derived from murine TCR is used to amplify said nucleic acid molecule.